RATIO & PROPORTION

A proportion is a statement of equality between 2 ratios.
To solve, set up the proportion, cross multiply and solve.

Example: $\frac{3}{4} = \frac{39}{x}$; $3x = 4(39)$

$x = 52$

Hint: Proportions can also be solved by equivalent fractions

In exercises 1-8, find the value of the variable that makes the proportion true.

1. $\frac{10}{18} = \frac{x}{45}$

2. $\frac{5}{8} = \frac{25}{y}$

3. $\frac{120}{200} = \frac{36}{w}$

4. $\frac{1}{8} = \frac{t}{6}$

5. $\frac{x}{10} = \frac{200}{30}$

6. $\frac{500}{25} = \frac{100}{y}$

7. $\frac{7}{5} = \frac{P}{100}$

8. $\frac{A}{75} = \frac{15}{100}$

9. Elisa bought a blouse on sale. She saved 25% of the original price, or $10. What was the original price of the blouse? How much did she pay for the blouse?

10. If a car gets 30 miles per gallon of gas, how many gallons of gas are needed to travel 345 miles?

11. On a map, one inch represents 50 kilometers. How may inches represent 160 kilometers?